What Is Claimed Is:

1. A tire air pressure monitor comprising:

tire air pressure sensors and transmitters which are respectively annexed to tires mounted on a vehicle;

two receiving antennas which receive a transmitting signal from each of the transmitters;

phase shifters which shift signal phases received from the receiving antennas respectively by control voltages;

a synthesizer which synthesizes outputs from the phase shifters; and

a meter which detects an output level from the synthesizer, wherein,

the two receiving antennas are arranged so that receiving phase differences between the two receiving antennas as to the transmitting signal from each of the transmitters are made different,

wherein the control voltages for the phase shifters are respectively obtained in advance, which maximize the output level from the synthesizer, as to respective tire mounting positions provided with the transmitters to store an association table relating each of the tire mounting positions to the control voltages, and

wherein the control voltages are controlled so that the output level from the synthesizer is maximized with respect to a transmitting signal from any one of the tire

mounting positions to identify each of the tire mounting positions by comparing values of the control voltages thus controlled with the association table.

2. A tire air pressure monitor comprising:

tire air pressure sensors and transmitters which are respectively annexed to tires mounted on a vehicle;

two receiving antennas which receive a transmitting signal from each of the transmitters;

phase shifters which shift signal phases received from the receiving antennas respectively by control voltages;

a synthesizer which synthesizes outputs from the phase shifters, and

a meter which detects an output level from the synthesizer, wherein,

the two receiving antennas are arranged so that receiving phase differences between the two receiving antennas as to the transmitting signal from each of the transmitters are made different,

wherein the control voltages for the phase shifters are respectively obtained in advance and stored, which maximize the output level from the synthesizer, as to respective tire mounting positions provided with the transmitters, and

wherein the control voltages stored respectively for the tire mounting positions are applied to a

transmitting signal from any one of the tire mounting positions, so as to obtain the output level from the synthesizer and to detect a degree of the level, whereby the tire mounting position is identified.